Takuya Terai

List of Publications by Year in descending order

91 papers	8,172 citations	61687 45 h-index	53065 89 g-index
99 all docs	99 docs citations	99 times ranked	10283 citing authors

#	Article	IF	Citations
1	Development of a Highly Selective Fluorescence Probe for Hydrogen Sulfide. Journal of the American Chemical Society, 2011, 133, 18003-18005.	6.6	614
2	Development of an Si-Rhodamine-Based Far-Red to Near-Infrared Fluorescence Probe Selective for Hypochlorous Acid and Its Applications for Biological Imaging. Journal of the American Chemical Society, 2011, 133, 5680-5682.	6.6	524
3	Fluorescent probes for bioimaging applications. Current Opinion in Chemical Biology, 2008, 12, 515-521.	2.8	370
4	Development of a Highly Sensitive Fluorescence Probe for Hydrogen Peroxide. Journal of the American Chemical Society, 2011, 133, 10629-10637.	6.6	340
5	Evolution of Group 14 Rhodamines as Platforms for Near-Infrared Fluorescence Probes Utilizing Photoinduced Electron Transfer. ACS Chemical Biology, 2011, 6, 600-608.	1.6	339
6	Development and Application of a Near-Infrared Fluorescence Probe for Oxidative Stress Based on Differential Reactivity of Linked Cyanine Dyes. Journal of the American Chemical Society, 2010, 132, 2795-2801.	6.6	329
7	Hypoxia-Sensitive Fluorescent Probes for in Vivo Real-Time Fluorescence Imaging of Acute Ischemia. Journal of the American Chemical Society, 2010, 132, 15846-15848.	6.6	321
8	Rational Design of Ratiometric Near-Infrared Fluorescent pH Probes with Various pK_a Values, Based on Aminocyanine. Journal of the American Chemical Society, 2011, 133, 3401-3409.	6.6	260
9	Development of NIR Fluorescent Dyes Based on Siâ€“rhodamine for in Vivo Imaging. Journal of the American Chemical Society, 2012, 134, 5029-5031.	6.6	259
10	Development of Azoâ€Based Fluorescent Probes to Detect Different Levels of Hypoxia. Angewandte Chemie - International Edition, 2013, 52, 13028-13032.	7.2	241
11	Small-molecule fluorophores and fluorescent probes for bioimaging. Pflugers Archiv European Journal of Physiology, 2013, 465, 347-359.	1.3	240
12	Rational Design of Highly Sensitive Fluorescence Probes for Protease and Glycosidase Based on Precisely Controlled Spirocyclization. Journal of the American Chemical Society, 2013, 135, 409-414.	6.6	231
13	Development of an Azo-Based Photosensitizer Activated under Mild Hypoxia for Photodynamic Therapy. Journal of the American Chemical Society, 2017, 139, 13713-13719.	6.6	206
14	Development of a Far-Red to Near-Infrared Fluorescence Probe for Calcium Ion and its Application to Multicolor Neuronal Imaging. Journal of the American Chemical Society, 2011, 133, 14157-14159.	6.6	176
15	Modulation of Luminescence Intensity of Lanthanide Complexes by Photoinduced Electron Transfer and Its Application to a Long-Lived Protease Probe. Journal of the American Chemical Society, 2006, 128, 6938-6946.	6.6	151
16	Design and Synthesis of a Highly Sensitive Offâ€“On Fluorescent Chemosensor for Zinc Ions Utilizing Internal Charge Transfer. Chemistry - A European Journal, 2010, 16, 568-572.	1.7	151
17	Development of a fluorescein analogue, TokyoMagenta, as a novel scaffold for fluorescence probes in red region. Chemical Communications, 2011, 47, 4162.	2.2	151
18	A reversible near-infrared fluorescence probe for reactive oxygen species based on Teâ€“rhodamine. Chemical Communications, 2012, 48, 3091.	2.2	147

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19	Design and Synthesis of Highly Sensitive Fluorogenic Substrates for Glutathione S-Transferase and Application for Activity Imaging in Living Cells. Journal of the American Chemical Society, 2008, 130, 14533-14543.	6.6	139
20	Molecular Design Strategies for Nearâ€Infrared Ratiometric Fluorescent Probes Based on the Unique Spectral Properties of Aminocyanines. Chemistry - A European Journal, 2009, 15, 9191-9200.	1.7	122
21	Design Strategy for a Near-Infrared Fluorescence Probe for Matrix Metalloproteinase Utilizing Highly Cell Permeable Boron Dipyrromethene. Journal of the American Chemical Society, 2012, 134, 13730-13737.	6.6	120
22	Highly Activatable and Environment-Insensitive Optical Highlighters for Selective Spatiotemporal Imaging of Target Proteins. Journal of the American Chemical Society, 2012, 134, 11153-11160.	6.6	115
23	Development of a Series of Practical Fluorescent Chemical Tools To Measure pH Values in Living Samples. Journal of the American Chemical Society, 2018, 140, 5925-5933.	6.6	115
24	Reversible Offâ€“On Fluorescence Probe for Hypoxia and Imaging of Hypoxiaâ€“Normoxia Cycles in Live Cells. Journal of the American Chemical Society, 2012, 134, 19588-19591.	6.6	110
25	Development of a Series of Near-Infrared Dark Quenchers Based on Si-rhodamines and Their Application to Fluorescent Probes. Journal of the American Chemical Society, 2015, 137, 4759-4765.	6.6	109
26	A Simple and Effective Strategy To Increase the Sensitivity of Fluorescence Probes in Living Cells. Journal of the American Chemical Society, 2009, 131, 10189-10200.	6.6	104
27	Selective Ablation of Î²â€Galactosidaseâ€Expressing Cells with a Rationally Designed Activatable Photosensitizer. Angewandte Chemie - International Edition, 2014, 53, 6772-6775.	7.2	102
28	Boron Dipyrromethene As a Fluorescent Caging Group for Single-Photon Uncaging with Long-Wavelength Visible Light. ACS Chemical Biology, 2014, 9, 2242-2246.	1.6	87
29	Gliotoxin Suppresses NF-ÎºB Activation by Selectively Inhibiting Linear Ubiquitin Chain Assembly Complex (LUBAC). ACS Chemical Biology, 2015, 10, 675-681.	1.6	77
30	Discovery and Mechanistic Characterization of Selective Inhibitors of H2S-producing Enzyme: 3-Mercaptopyruvate Sulfurtransferase (3MST) Targeting Active-site Cysteine Persulfide. Scientific Reports, 2017, 7, 40227.	1.6	73
31	Design and Development of Enzymatically Activatable Photosensitizer Based on Unique Characteristics of Thiazole Orange. Journal of the American Chemical Society, 2009, 131, 6058-6059.	6.6	72
32	Development of 2,6-carboxy-substituted boron dipyrromethene (BODIPY) as a novel scaffold of ratiometric fluorescent probes for live cell imaging. Chemical Communications, 2009, , 7015.	2.2	71
33	Red Fluorescent Probe for Monitoring the Dynamics of Cytoplasmic Calcium Ions. Angewandte Chemie - International Edition, 2013, 52, 3874-3877.	7.2	71
34	Development of a reversible fluorescent probe for reactive sulfur species, sulfane sulfur, and its biological application. Chemical Communications, 2017, 53, 1064-1067.	2.2	70
35	A Gd³⁺â€Based Magnetic Resonance Imaging Contrast Agent Sensitive to Î²â€Galactosidase Activity Utilizing a Receptorâ€Induced Magnetization Enhancement (RIME) Phenomenon. Chemistry - A European Journal, 2008, 14, 987-995.	1.7	67
36	Design and synthesis of a novel fluorescence probe for Zn2+ based on the spirolactam ring-opening process of rhodamine derivatives. Bioorganic and Medicinal Chemistry, 2011, 19, 1072-1078.	1.4	63

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37	New Class of Bioluminogenic Probe Based on Bioluminescent Enzyme-Induced Electron Transfer: BioLeT. Journal of the American Chemical Society, 2015, 137, 4010-4013.	6.6	63
38	Development of Luciferin Analogues Bearing an Amino Group and Their Application as BRET Donors. Chemistry - an Asian Journal, 2010, 5, 2053-2061.	1.7	62
39	Aminoluciferins as Functional Bioluminogenic Substrates of Firefly Luciferase. Chemistry - an Asian Journal, 2011, 6, 1800-1810.	1.7	58
40	Development of a Sensitive Bioluminogenic Probe for Imaging Highly Reactive Oxygen Species in Living Rats. Angewandte Chemie - International Edition, 2015, 54, 14768-14771.	7.2	57
41	Near-Infrared Fluorescence Probes for Enzymes Based on Binding Affinity Modulation of Squarylium Dye Scaffold. Analytical Chemistry, 2012, 84, 4404-4410.	3.2	55
42	Rational design of boron dipyrromethene (BODIPY)-based photobleaching-resistant fluorophores applicable to a protein dynamics study. Chemical Communications, 2011, 47, 10055.	2.2	54
43	Protein-Coupled Fluorescent Probe To Visualize Potassium Ion Transition on Cellular Membranes. Analytical Chemistry, 2016, 88, 2693-2700.	3.2	54
44	Analysis of Chemical Equilibrium of Silicon-Substituted Fluorescein and Its Application to Develop a Scaffold for Red Fluorescent Probes. Analytical Chemistry, 2015, 87, 9061-9069.	3.2	49
45	Development of hypoxia-sensitive Gd3+-based MRI contrast agents. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 2798-2802.	1.0	47
46	Red fluorescent scaffold for highly sensitive protease activity probes. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 3908-3911.	1.0	44
47	A long-lived luminescent probe to sensitively detect arylamine N-acetyltransferase (NAT) activity of cells. Chemical Communications, 2012, 48, 2234.	2.2	40
48	Fluorescence Probe for Lysophospholipase C/NPP6 Activity and a Potent NPP6 Inhibitor. Journal of the American Chemical Society, 2011, 133, 12021-12030.	6.6	37
49	Synthesis of unsymmetrical Si-rhodamine fluorophores and application to a far-red to near-infrared fluorescence probe for hypoxia. Chemical Communications, 2018, 54, 6939-6942.	2.2	36
50	A Timeâ€Resolved Fluorescence Probe for Dipeptidyl Peptidase 4 and Its Application in Inhibitor Screening. Chemistry - A European Journal, 2010, 16, 13479-13486.	1.7	34
51	Development of a highly selective fluorescence probe for alkaline phosphatase. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 5088-5091.	1.0	34
52	Rational Development of Caged-Biotin Protein-Labeling Agents and Some Applications in Live Cells. Chemistry and Biology, 2011, 18, 1261-1272.	6.2	34
53	Development of an Azoreductase-based Reporter System with Synthetic Fluorogenic Substrates. ACS Chemical Biology, 2017, 12, 558-563.	1.6	33
54	A practical strategy to create near-infrared luminescent probes: conversion from fluorescein-based sensors. Chemical Communications, 2012, 48, 2840.	2.2	32

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55	Thermal or Mechanical Stimuliâ€Induced Photoluminescence Color Change of a Molecular Assembly Composed of an Amphiphilic Anthracene Derivative in Water. Chemistry - A European Journal, 2014, 20, 10397-10403.	1.7	32
56	Development of a potassium ion-selective fluorescent sensor based on 3-styrylated BODIPY. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 6090-6093.	1.0	31
57	Diced Electrophoresis Gel Assay for Screening Enzymes with Specified Activities. Journal of the American Chemical Society, 2013, 135, 6002-6005.	6.6	31
58	Practical fluorescence detection of acrolein in human plasma via a two-step tethering approach. Chemical Communications, 2014, 50, 14946-14948.	2.2	26
59	Salicylicâ€Acid Derivatives as Antennae for Ratiometric Luminescent Probes Based on Lanthanide Complexes. Chemistry - A European Journal, 2012, 18, 7377-7381.	1.7	24
60	Development of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. Cell Calcium, 2016, 60, 256-265.	1.1	24
61	TokyoGreen derivatives as specific and practical fluorescent probes for UDP-glucuronosyltransferase (UGT) 1A1. Chemical Communications, 2013, 49, 3101.	2.2	23
62	Sensitive Detection of Acrolein in Serum Using Time-Resolved Luminescence. Organic Letters, 2010, 12, 1704-1707.	2.4	22
63	Detection of NAD(P)H-dependent enzyme activity with dynamic luminescence quenching of terbium complexes. Chemical Communications, 2015, 51, 8319-8322.	2.2	22
64	Artificial Ligands of Streptavidin (ALiS): Discovery, Characterization, and Application for Reversible Control of Intracellular Protein Transport. Journal of the American Chemical Society, 2015, 137, 10464-10467.	6.6	22
65	Identification of Tissue-Restricted Bioreaction Suitable for in Vivo Targeting by Fluorescent Substrate Library-Based Enzyme Discovery. Journal of the American Chemical Society, 2015, 137, 12187-12190.	6.6	20
66	In Situ Evaluation of Kinetic Resolution Catalysts for Nitroaldol by Rationally Designed Fluorescence Probe. Journal of Organic Chemistry, 2011, 76, 3616-3625.	1.7	18
67	Discovery of Cell-Type-Specific and Disease-Related Enzymatic Activity Changes via Global Evaluation of Peptide Metabolism. Journal of the American Chemical Society, 2017, 139, 3465-3472.	6.6	17
68	Unexpected Photoâ€Instability of 2,6â€Sulfonamideâ€Substituted BODIPYs and Its Application to Caged GABA. ChemBioChem, 2016, 17, 1233-1240.	1.3	16
69	Development of a novel fluorescent probe for fluorescence correlation spectroscopic detection of kinase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 3752-3755.	1.0	14
70	A novel immuno-PCR method using cDNA display. Analytical Biochemistry, 2019, 578, 1-6.	1.1	14
71	Rapidly rendering cells phagocytic through a cell surface display technique and concurrent Rac activation. Science Signaling, 2014, 7, rs4.	1.6	13
72	A design strategy for small molecule-based targeted MRI contrast agents: their application for detection of atherosclerotic plaques. Organic and Biomolecular Chemistry, 2014, 12, 8611-8618.	1.5	13

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73	Selection of Peptides that Associate with Dye-Conjugated Solid Surfaces in a pH-Dependent Manner Using cDNA Display. ACS Omega, 2019, 4, 7378-7384.	1.6	13
74	In vitro selection of anti-gliadin single-domain antibodies from a naÃ¯ve library for cDNA-display mediated immuno-PCR. Analytical Biochemistry, 2020, 589, 113490.	1.1	13
75	In vitro selection of random peptides against artificial lipid bilayers: a potential tool to immobilize molecules on membranes. Chemical Communications, 2017, 53, 3458-3461.	2.2	12
76	A protein-coupled fluorescent probe for organelle-specific imaging of Na+. Sensors and Actuators B: Chemical, 2018, 265, 575-581.	4.0	12
77	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. Angewandte Chemie - International Edition, 2017, 56, 153-157.	7.2	11
78	Selective Twoâ€Step Labeling of Proteins with an Off/On Fluorescent Probe. Chemistry - A European Journal, 2011, 17, 14763-14771.	1.7	10
79	Detection of NAD(P)H-dependent enzyme activity by time-domain ratiometry of terbium luminescence. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 2314-2317.	1.0	8
80	Discovery of a pyruvylated peptide-metabolizing enzyme using a fluorescent substrate-based protein discovery technique. Chemical Communications, 2016, 52, 4377-4380.	2.2	7
81	Fluorometric assay of integrin activity with a small-molecular probe that senses the binding site microenvironment. Chemical Communications, 2014, 50, 15894-15896.	2.2	6
82	Enhanced mRNA-protein fusion efficiency of a single-domain antibody by selection of mRNA display with additional random sequences in the terminal translated regions. Biophysics and Physicobiology, 2017, 14, 23-28.	0.5	6
83	Identification of Lung Inflammation-Related Elevation of Acylamino Acid Releasing Enzyme (APEH) Activity Using an Enzymomics Approach. Chemical and Pharmaceutical Bulletin, 2016, 64, 1533-1538.	0.6	5
84	Photocrosslinking of cDNA Display Molecules with Their Target Proteins as a New Strategy for Peptide Selection. Molecules, 2020, 25, 1472.	1.7	3
85	cDNA Display Mediated Immuno-PCR (cD-IPCR): A Novel PCR-based Antigen Detection Method. Bio-protocol, 2019, 9, e3457.	0.2	3
86	Site-Specific Oxidative Stress Induction. Chemistry and Biology, 2007, 14, 877-878.	6.2	2
87	In Vitro Construction of Large-scale DNA Libraries from Fragments Containing Random Regions using Deoxyinosine-containing Oligonucleotides and Endonuclease V. ACS Combinatorial Science, 2020, 22, 165-171.	3.8	2
88	Interleukin-17A Peptide Aptamers with an Unexpected Binding Moiety Selected by cDNA Display under Heterogenous Conditions. ACS Medicinal Chemistry Letters, 2021, 12, 1427-1434.	1.3	2
89	Improving the Solubility of Artificial Ligands of Streptavidin to Enable More Practical Reversible Switching of Protein Localization in Cells. ChemBioChem, 2017, 18, 358-362.	1.3	1
90	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. Angewandte Chemie, 2017, 129, 159-163.	1.6	1

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91	Synthesis of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. Data in Brief, 2017, 12, 351-357.	0.5	1